

MC180406164: NADIA RAJ IQ

MTH631: quiz-3

Question # 2 of 10 (Start time: 01:21:45 PM, 29 August 2020)

If $L: X = (-1, 3, -1) + t(2, -4, 0)$, $-\infty < t < \infty$ is the equation of line through $(-1, 3, -1)$ and $(1, -1, -1)$ in $\mathbb{R}^3$, then the line segment on L , when $t = 1$ is - - -

Select the correct option

☐ $X = (1 - t)(-1, 3, -1) + t(2, -4, 0), 0 \leq t \leq 1$

☐ $X = t(-1, 3, -1) + (1 - t)(2, -4, 0), 0 \leq t \leq 1$

☒ $X = (1 - t)(-1, 3, -1) + t(1, -1, -1), 0 \leq t \leq 1$

☐ $X = t(-1, 3, -1) + (1 - t)(1, -1, -1), 0 \leq t \leq 1$

Question # 6 of 10 (Start time: 01:25:52 PM, 29 August 2020)

A sequence of points $\{X_n\}$ in $\mathbb{R}^n$ converges if and only if for each _____ there is an integer K such that _____ if n .

Select the correct option

☐ $\epsilon < 0, |X_n - X_n| < \epsilon$

☒ $\epsilon > 0, |X_n - X_n| > \epsilon$

☐ $\epsilon > 0, |X_n - X_n| < \epsilon$

☐ $\epsilon \neq 0, |X_n - X_n| > \epsilon$

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DELL

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2020)

Closure of the set $\{(x, y) : -n < x, y < n, (x, y) \neq (0, 0), n \in \mathbb{N}\}$ in $\mathbb{R}^2$, is -----.

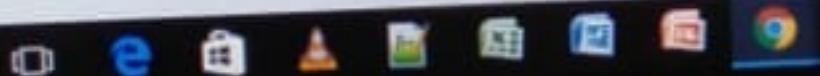
$$\{(x, y) : -n < x, y < n, n \in \mathbb{N}\}$$

6

$$\{(x, y) : -n \leq x, y \leq n, n \in \mathbb{N}\}$$

$$\{(x, y) : (x, y) \neq (0, 0)\}$$

$$\{(x, y) : x, y \leq n, (x, y) \neq (0, 0), n \in \mathbb{N}\}$$



DELL

Question # 4 of 10 (Start time: 01:24:22 PM, 29 August 2020)

The length of the vector $\vec{x} = (x_1, x_2, 3, x_4, 5)$ is $|\vec{x}| =$ _____

Select the correct option



$$(x_1^2 + x_2^2 + 9 + x_4^2 + 25)$$



$$(x_1^2, x_2^2, 9, x_4^2, 25)^{\frac{1}{2}}$$



$$(x_1^2 + x_2^2 + x_4^2 + 34)^{\frac{1}{2}}$$



$$(x_1^2 + x_2^2 + 3^4 + x_4^2 + 5^6)^{\frac{1}{2}}$$



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Question # 4 of 10 (Start time: 11:44:17 AM, 31 August 2020)

If $\vec{x}$, $\vec{y}$ and $\vec{z}$ are in $\mathbb{R}^n$, then _____ $|\vec{x} - \vec{y}| + |\vec{y} - \vec{z}|$.

Select the correct option

☒	$ \vec{x} - \vec{z} \leq$
☐	$ \vec{x} - \vec{z} <$
☐	$ \vec{x} - \vec{z} \geq$
☐	$ \vec{x} - \vec{z} >$

Question # 1 of 10 (Start time: 01:20:16 PM, 29 August 2020)

Both $X = X_0 + sV$ and $X = X_0 + tU$, $-\infty < s, t < \infty$ represent the same line through X_0 in

Select the correct option

- ☐ $sV = tU$, $s \neq 0$ or $t \neq 0$
- ☐ $V = \alpha U$, $\alpha \neq 0$
- ☐ $U = \beta V$, $\beta \neq 0$
- ☒ All above are equivalent

Question # 2 of 10 (*Start time: 11:55:53 AM, 31 August 2020*)

Topological Properties of $\mathbb{R}^n$ can be described in terms of special class of sub

Select the correct option

- | | |
|-----------------------|--------------------|
| ☐ | open sets |
| ☐ | closed sets |
| ☐ | neighborhoods |
| ☐ | all are equivalent |

Question # 8 of 10 (Start time: 01:28:09 PM, 29 August 2020)

The set $\{(x, y) : -n < x, y < n, (x, y) \neq (0, 0), n \in \mathbb{N}\}$ is ----- in $\mathbb{R}^2$.

Select the correct option



open



closed



neither open nor closed



both open or closed



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Questions # 10 of 10 (Start time: 01:29:57 PM, 29 August 2020)

If the points 0 , X , Y and $X + Y$ are joined to form a parallelogram in $\mathbb{R}^n$ of sides $|X|$ and $|Y|$ then its diagonal is represented by $|(X + Y)|$.

Select the correct option

 $|X| + |Y|$ $|X| = |Y|$ $[X + Y]$
$$||X| - |Y||$$

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Question # 5 of 10 (Start time: 11:58:19 AM, 31 August 2020)

The length of the vector $\vec{x} = (x_1, x_2, 3, x_4, 5)$ is $|\vec{x}| =$ _____

Select the correct option



$$(x_1^2 + x_2^2 + 9 + x_4^2 + 25)$$



$$(x_1^2, x_2^2, 9, x_4^2, 25)^{\frac{1}{2}}$$



$$(x_1^2 + x_2^2 + x_4^2 + 34)^{\frac{1}{2}}$$



$$(x_1^2 + x_2^2 + 3^2 + x_4^2 + 5^2)^{\frac{1}{2}}$$

12:52:40 PM, 21 August 2020

Closure of the set $\{(x, y) : -n < x, y < n, (x, y) \neq (0, 0), n \in \mathbb{N}\}$ in $\mathbb{R}^2$ is

$$\{(x, y) : -n < x, y < n, n \in \mathbb{N}\}$$

$$\{(x, y) : -n \leq x, y \leq n, n \in \mathbb{N}\}$$

$$\{(x, y) : (x, y) \neq (0, 0)\}$$

$$\{(x, y) : x, y \leq n, (x, y) \neq (0, 0), n \in \mathbb{N}\}$$

Question # 9 of 10 (Start time: 01:29:01 PM, 29 August 2020)

 $|x|$ is the distance between x and _____

Select the correct option

☒	the origin
☐	$\bar{y}$
☐	x
☐	identity



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TH631 quiz-3

Question # 4 of 10 (Start time: 11:57:36 AM, 31 August 2020)

In R^4 let $\bar{x} = (1, -3, 5, 6)$ and $\bar{y} = (2, -4, 3, \frac{1}{2})$. $\bar{x} + \bar{y} =$

Select the correct option

- | | |
|----------------------------------|---------------------------|
| ☒ | $(3, -7, 8, 6.5)$ |
| ☐ | $(2, -7, 8, 6)$ |
| ☐ | $(3, 7, 8, 6.5)$ |
| ☐ | $(3, -7, 8, \frac{1}{2})$ |



Quiz

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MC190201557: RAAFIA ABID

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Question # 8 of 10 (Start time: 11:47:35 AM, 31 August 2020)

If the points O , X , Y and $X + Y$ are joined to form a parallelogram in $\mathbb{R}^2$ of sides $|X|$ and $|Y|$, then its diagonal is represented by - - - - -.

Select the correct option

☒	$ X + Y $
☐	$ X - Y $
☐	$ X + Y $
☐	$ X - Y $

Submit Answer

Question # 7 of 10 (Start time: 11:46:59 AM, 31 August 2020)

If $\bar{x}$ and $\bar{y}$ are in R^n , then _____ is called triangle inequality.

Select the correct option

☐	$ \bar{x} + \bar{y} \geq \bar{x} + \bar{y} $
☐	$ \bar{x} + \bar{y} < \bar{x} + \bar{y} $
☒	$ \bar{x} + \bar{y} \leq \bar{x} + \bar{y} $
☐	$ \bar{x} + \bar{y} > \bar{x} + \bar{y} $

Question # 3 of 10 (Start time: 01:23:15 PM, 29 August 2020)

A sequence of points $\{X_r\}$ in R^n converges to the limit $\bar{X}$ if _____.

Select the correct option

☐	$\lim_{r \rightarrow 0} X_r - \bar{X} = 0$
☐	$\lim_{r \rightarrow \infty} X_r - \bar{X} = 1$
☒	$\lim_{r \rightarrow \infty} X_r - \bar{X} = 0$
☐	$\lim_{r \rightarrow 0} X_r - \bar{X} = \bar{X}$



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<https://quiz.v>

MCTH2020SR: MUHAMMAD ASIF

MTH631:quiz-3

Question # 3 of 10 (Start time: 12:16:04 PM, 31 August 2020)

If X and Y are in $\mathbb{R}^n$, then $|X + Y|^2 \leq$ - - - - -

Select the correct option



$$|X|^2 + 2(X, Y) + |Y|^2$$



$$||X|^2 - |Y|^2|$$



$$||X| - |Y||^2$$



$$|X|^2 + 2|X||Y| + |Y|^2$$

You

31 August, 2:59 pm

<https://quiz.vu.edu.pk/QuizQue>

If X and Y are in $\mathbb{R}^n$, then $|X - Y|$ -----.

Select the correct option

☐	$\leq X - Y $
☐	$\leq X - Y $
☒	$\geq X - Y $
☐	$\leq Y - X $



<https://quiz.vu.edu.pk/QuizQue>

If X and Y are in $\mathbb{R}^n$, then $|X - Y|$ — — — —.

Select the correct option

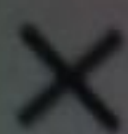
☐	$\leq X - Y $
☐	$\leq X - Y $
☐	$\geq X - Y $
☐	$\leq Y - X $

Question # 5 of 10 (Start time: 03:04:32 PM, 31 August 2020)

The vector sum of $\vec{x} = (x_1, x_2, x_3, x_4, x_5, x_6)$ and $\vec{y} = (y_1, y_2, y_3, y_4, y_5, y_6)$

Select the correct option

☐	$(x_1 + y_1 + x_2 + y_2 + \dots + x_6 + y_6)$
☐	$(x_1 + y_1, x_2 + y_2, \dots, x_6 + y_6)$
☒	$(x_1 + y_1, x_2 + y_2, \dots, x_6 + y_6)$
☐	$(x_6 + y_6, x_5 + y_5, \dots, x_1 + y_1)$



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MC190400099: SYEDA HIJAB ZAHRA KAZMI

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Question # 10 of 10 (Start time: 02:47:47 PM, 31 August 2020)

If $\vec{x}$ and $\vec{y}$ are in $\mathbb{R}^n$, then _____ is called triangle inequality.

Select the correct option

☐	$ \vec{x} + \vec{y} \geq \vec{x} + \vec{y} $
☐	$ \vec{x} + \vec{y} < \vec{x} + \vec{y} $
☒	$ \vec{x} + \vec{y} \leq \vec{x} + \vec{y} $
☐	$ \vec{x} + \vec{y} > \vec{x} + \vec{y} $



You

25 photos

Question # 5 of 10 (Start time: 01:25:16 PM, 29 August 2020)

If X and Y are in $\mathbb{R}^n$, then $|X + Y|^2 \leq \dots$

Select the correct option

- | | |
|----------------------------------|--------------------------------|
| ☒ | $ X ^2 + 2(X \cdot Y) + Y ^2$ |
| ☐ | $ X ^2 - Y ^2 $ |
| ☐ | $ X - Y ^2$ |
| ☒ | $ X ^2 + 2 X Y + Y ^2$ |



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Limit points of set $S = \{(x, y) : -n < x, y < n, (x, y) \neq (0, 0), n \in \mathbb{N}\}$ in $\mathbb{R}^2$

Select the correct option

☐	$\{(0, 0)\} \cup \{(x, y) : x, y = \pm n, n \in \mathbb{N}\}$
☐	$\{(0, 0)\} \cup S$
☒	$\{(0, 0)\} \cup \{(x, y) : x, y = \pm n, n \in \mathbb{N}\} \cup S$
☐	$\{(x, y) : x, y = \pm n, n \in \mathbb{N}\} \cup S$

The ε - neighborhood at X_0 in $\mathbb{R}^n$ is the set points - - -

Select the correct option

☒	inside and on the boundary
☐	only on the boundary
☐	only inside
☐	inside or on the boundary

The ϵ -neighborhood

a correct option

inside and on the boundary



only on the boundary

only inside

inside or on the boundary



Question # 2 of 10 (Start time: 02:51:24 PM, 31 August 2020)

If $\vec{x}$ and $\vec{z}$ are in $\mathbb{R}^n$, then $||\vec{x}| - |\vec{z}||$

Select the correct option

☐	$ \vec{x} - \vec{z} \leq$
☐	$ \vec{x} - \vec{z} <$
☒	$ \vec{x} - \vec{z} \geq$
☐	$ \vec{x} - \vec{z} >$